

CLAIM AMENDMENTS

1-16 (Cancelled)

17. (New) A support apparatus for supporting material to be treated in a continuously operated thermal treatment furnace, said apparatus comprising:

an elongate gas control element having a central axis and having first and second guide surfaces, and

first and second substantially cylindrical support elements of substantially equal diameter D and each having a central axis, the central axis of each support element being parallel to the central axis of the gas control element and being spaced at a distance S from the central axis of the gas control element, and the central axes of the control element and the support elements being disposed in a common plane,

wherein the gas control element is located between the support elements with [the first and second guide surfaces of the gas control element facing towards the first and second support elements respectively], the guide surfaces are spaced from the support elements to provide a gas flow channel between each support element and the gas control element, the gas control element includes two lobes that extend to opposite respective sides of said common plane, and each lobe extends radially from the central axis of the gas control element to a distance of at least $(D/2 + S)$.

18. (New) An apparatus according to claim 17, wherein the gas flow channel increases in width with distance from the common plane.

19. (New) An apparatus according to claim 17, wherein the first guide surface has a center of curvature that is farther than the central axis of the first support element from the central axis of the control element.

20. (New) An apparatus according to claim 17, wherein each lobe of the gas control element has an outermost surface region at a distance R from the central axis of the support element.

21. (New) An apparatus according to claim 20, wherein the diameter D of each support element is substantially equal to $2(R-S)$.

22. (New) An apparatus according to claim 17, further comprising two sealing elements and wherein the gas control element is located between the two sealing elements.

23. (New) An apparatus according to claim 22, comprising two intermediate support elements disposed between the gas control element and the sealing elements respectively.

24. (New) An apparatus according to claim 22, wherein each sealing element is provided with a flow-through type cooling agent circulation.

25. (New) An apparatus according to claim 17, wherein the gas control element is composed of at least two successive segments and the apparatus comprises an intermediate support element between the segments of the gas control element.

26. (New) An apparatus according to claim 17, wherein the control element is curved over essentially its entire external surface.

27. (New) An apparatus according to claim 17, wherein each support element is provided with a flow-through type cooling agent circulation.

28. (New) An apparatus according to claim 17, wherein the control element is provided with a flow-through type cooling agent circulation.

29. (New) A continuously operated thermal treatment furnace comprising support apparatus for supporting material to be treated in the furnace, said apparatus comprising:

an elongate gas control element having a central axis and having first and second guide surfaces, and

first and second substantially cylindrical support elements of substantially equal diameter D and each having a central axis, the central axis of each support element being parallel to the central axis of the gas control element and being spaced at a distance S from the central axis of the gas control element, and the central axes of

the control element and the support elements being disposed in a common plane,

112 wherein the gas control element is located between the support elements with the first and second guide surfaces of the gas control element facing towards the first and second support elements respectively, the guide surfaces are spaced from the support elements to provide a gas flow channel between each support element and the gas control element and enable flow of gas used in treatment of the material between the support element and the control element, the gas control element includes two lobes that extend to opposite respective sides of said common plane, each lobe extends radially from the central axis of the gas control element to a distance of at least $(D/2 + S)$, and the gas control element constitutes part of a seal of the thermal treatment furnace.

18 30. (New) A thermal treatment furnace according to claim 29, wherein the gas flow channel increases in width with distance from the common plane.

19 31. (New) A thermal treatment furnace according to claim 29, wherein the first guide surface has a center of curvature that is farther than the central axis of the first support element from the central axis of the control element.

20 32. (New) A thermal treatment furnace according to claim 29, wherein each lobe of the gas control element has an outermost surface region at a distance R from the central axis of the support element.

21 33. (New) A thermal treatment furnace according to claim 29, wherein the diameter D of each cylinder support element is substantially equal to $2(R-S)$.

22 34. (New) A thermal treatment furnace according to claim 29, wherein said support apparatus further comprises at least two sealing elements and the control element is installed between the two sealing elements so that the sealing elements direct gas flow underneath the material to be supported, between the support element and the control element.

23 35. (New) A thermal treatment furnace according to claim 34, wherein the support apparatus comprises two intermediate support elements located between the control element and the sealing elements respectively.

24 36. (New) A thermal treatment furnace according to claim 34, wherein each sealing element is provided with a flow-through type cooling agent circulation.

25 37. (New) A thermal treatment furnace according to claim 29, wherein the gas control element is composed of at least two successive segments and the apparatus comprises an intermediate support element between the segments of the control element.

26 38. (New) A thermal treatment furnace according to claim 29, wherein the control element is curved over essentially its entire external surface.

27 39. (New) A thermal treatment furnace according to claim 29, wherein each support element is provided with a flow-through type cooling agent circulation.

28 40. (New) A thermal treatment furnace according to claim 29, wherein the control element is provided with a flow-through type cooling agent circulation.

